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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/114,203	07/13/1998	ATSUSHI MIYANISHI	030682-066	8932

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EXAMINER

BAUMEISTER, BRADLEY W

ART UNIT PAPER NUMBER

2815

DATE MAILED: 02/12/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/114,203

Applicant(s)

Miyanishi et al.

Examiner

Bradley Baumeister

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1) ☒ Responsive to communication(s) filed on Jan 10, 2002

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

4) ☒ Claim(s) 2, 3, 6-11, and 13-24 is/are pending in the application.

4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.

6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.

7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.

8) ☒ Claims 2, 3, 6-11, and 13-24 are subject to restriction and/or election requirement.

## Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☒ All b) ☐ Some\* c) ☐ None of:

1. ☒ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

15) ☐ Notice of References Cited (PTO-892)

18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

19) ☐ Notice of Informal Patent Application (PTO-152)

17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_

20) ☐ Other:

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## **DETAILED ACTION**

### ***Election/Restriction***

1. A restriction requirement was previously issued for this application (see paper #4, mailed 12/22/99). Upon further consideration, the Examiner is of the opinion that some errors existed in the previous restriction and that some of the plural ones of the actual listed species may be examined without undue burden. Specifically:

a. The examiner issued a restriction between, e.g., the embodiments of Fig 1 and FIG 2. However, this is improper because these figures are not, in fact, directed towards separate species. Rather, FIG 2 merely shows the resultant structure of FIG 1 for those occasions when the manufacturing process produces undesired rounding at the corner of the ordinary/concave portions. This is also true with respect to FIGs. 3/4, 5/6, 8/9, 10/11, 12/13, 14/15 and 17/18.<sup>1</sup>

b. Further, some embodiments, while possessing/depicting mutually exclusive features, may be examined without posing an undue burden. (See e.g., FIGs 1-7).

c. Accordingly, the previous restriction is withdrawn and replaced with the following, revised restriction, as follows.

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<sup>1</sup>FIGs. 16, 19 and 22 depict schematics of what appear to be conventional circuits. FIG 23 depicts a plan view of what appears to be a conventional active region. Upon further examination on the merits, the Examiner will likely object to these drawings as requiring "PRIOR ART" labels. For the sake of compact prosecution, Applicant is invited to take this opportunity to either correct the drawings or to provide explanations why some or all of these figures should not be labeled prior art.

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2. This application contains claims directed to the following patentably distinct species of the claimed invention:
- I. Gate electrodes with individual end caps formed respectively over an ordinary portion and a concave portion of an active area wherein the concave portion forms a corner of the active area, as depicted by FIGs 1-15, and further wherein:
    - IA. The end cap of a concave-portion gate extends and terminates in the same direction as the associated gate, to which FIGS 1-7 are directed.
    - IB. The end cap of the concave-portion gate possesses a 90° bend and terminates perpendicular to its associated gate, to which FIGS 8-13 are directed.
    - IC. The end cap of the concave-portion gate possesses a 45° bend and terminates at this angle relative to its associated gate, to which FIGS 14 and 15 are directed.
  - II. Gate electrodes with end caps formed over an active region including an ordinary region and a concave portion wherein the end caps formed in the concave portion interconnect a plurality of gate electrodes, to which FIGs 17, 18, 20 and 21 are directed.
  - III. Gate electrodes with individual end caps formed respectively over an ordinary portion and a concave portion of an active area wherein the concave portion forms a depressed region in the active area, as depicted by FIGs 24-28.<sup>2</sup>

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<sup>2</sup>Newly added claims 13-24 (see Preliminary Amendment C, paper #24) are directed towards the invention of Species III. Currently, the scope of these claims does not warrant a restriction between the product claims (claims 13-18; class 257) and the method claims (claims 19-24; class 438). However, this issue may be revisited in the future if the method claims are subsequently amended to include detailed/particular method-directed limitations.

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3. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. **If Applicant elects species I, a further election among sub-species IA-IC is required.** Currently, claims 2, 3 and 6-9 are generic to Species I.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

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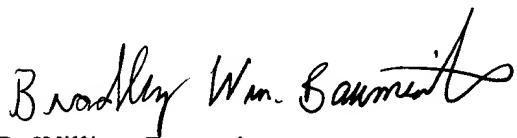
4. A telephone call was made to Ms. Ellen Marcie Emas on 2/11/02 to request an oral election to the above restriction requirement, but did not result in an election being made.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

#### INFORMATION ON HOW TO CONTACT THE USPTO

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to the examiner, **B. William Baumeister**, at **(703) 306-9165**. The examiner can normally be reached Monday through Friday, 8:30 a.m. to 5:00 p.m. If the Examiner is not available, the Examiner's supervisor, Mr. Eddie Lee, can be reached at (703) 308-1690. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.



B. William Baumeister  
Patent Examiner, Art Unit 2815  
February 11, 2002